

DEFINITION

An enclosed polyethylene, plastic, or fabric covered structure that is used to cover and protect edible crops from sun, wind, excessive rainfall, or cold, or to extend the growing season in an environmentally safe manner.

PURPOSES

- » Improve plant health and vigor

PLANNING REQUIREMENTS

Supportive conservation practices and/or treatment measures shall be implemented to address all environmental concerns associated with the installation and use of the high tunnel system (structures) such as erosion, irrigation, and runoff.

Crops must be grown in the natural soil profile. Raised beds may be installed to improve soil condition, fertility, and access. Raised beds shall not exceed 12 inches in depth.

The high tunnel structure must be planned, designed, and constructed from a manufactured kit in accordance with manufacturers' recommendations. The high tunnel frame must be constructed of metal, wood, or durable plastic; and be at least 6 feet in height at the peak of the structure. If required for enclosure, end wall covering may be of greenhouse grade plastic, polycarbonate, wood, or other recommended material. Structures shall be designed and sized to accommodate entry/exit points to facilitate movement of equipment and supplies needed for the production of planned crops.

These structures shall be constructed on level grade or naturally occurring slopes, of five percent or less.

Select the high tunnel covering material of a significant thickness to withstand the temperature change from the period required and shall have a 4-year minimum lifespan. For polyethylene covers, use a minimum 6-mil greenhouse grade, UV resistant material.

OPERATIONS AND MAINTENANCE

Structures shall be designed and sized to accommodate entry/exit points to facilitate movement of equipment and

supplies needed for the production of planned crops.

Periodically inspect the high tunnel and repair, reinstall, or replace materials as needed to accomplish the intended purpose. Manage the structure in a manner that limits wind and/or snow damage. Close sides and ends before storm events.

In areas that receive snow and ice, the structure shall be closed prior to winter weather.

Remove snow and ice from the structure cover and sides promptly to prevent structure failure.

Seed all disturbed earth surfaces outside of the high tunnel and maintain the vegetation throughout the structure's life.



PLANS AND SPECIFICATIONS

As a minimum, the plans and specifications shall include the following:

- » Identify the purpose.
- » Document the planned growing season.
- » Layout and location of the high tunnel.
- » Site preparations and the required supporting practices for erosion control, runoff, and vegetative cover according to the requirements of the corresponding conservation practice standard.
- » The planned width and length of the seasonal high tunnel.
- » Statement that the high tunnel was installed per the manufacturer's recommendations.

- » Contact the Oklahoma One-Call System at 811 at least 2 working days in advance of construction, for location of underground utilities. Refer to OK-ENG-45 for documentation requirements.
- » Obtain all necessary permits prior to

construction.

- » Procedure and timing to remove or roll up the high tunnel cover prior to inclement weather conditions.
- » Procedure and timing to add or replace shade cloth for protection from the sun for the high tunnel cover

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